

REMARKS

Claims 1-14 and 16-19 currently appear in this application. Claims 1-14 have been withdrawn. The Office Action of October 14, 2008, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Rejections under 35 U.S.C. 112

Claims 16-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

This rejection is respectfully traversed. Claim 16 has been amended to delete the inadvertently entered "+" sign.

Interview Summary

Applicant's attorney wishes to thank Examiner Piziali for courtesies extended during the telephone interview of November 15, 2008. During that interview, it was agreed that carbonizing the oxidized polypropylene fibers at

temperatures of from 900-2500°C would produce a very different fabric from that described in the cited patents.

Art Rejections

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough, US 4,950,533 in view of Ram, US 3,914,393 in view of Barron, US 4,248,036.

This rejection is respectfully traversed. Contrary to the Examiner's assertion that the method of making the herein claimed carbon fabric does not impart patentability, it is respectfully submitted that the woven carbon fabric claimed herein is indeed different from the fabrics disclosed in the cited references.

McCullough, at column 2, lines 1-68, discloses a variety of articles made partly of carbonaceous fibers, but these articles are designed to be fire retardant. There is nothing in McCullough regarding the magnetic wave shielding efficiency. Ram adds nothing to McCullough, because Ram merely describes carbonizing acrylic fibers to stabilize the fibers against burning. Ram discloses that the fibers must be carbonized at a temperature of below 300°C so as to prevent evolution of hydrogen cyanide gas. In contrast thereto, the fibers as claimed herein are recited to be carbonized at

temperatures of from 900-2500 degrees C. The comparison example fibers are carbonized at 800 and 700°C, and it is shown in Table III on page 6 of the specification as filed that the carbon fabrics as claimed herein have a superior magnetic wave shielding efficiency.

Likewise, Barron adds nothing to the combination of McCullough and Ram. Barron discloses fabric density for hose coverings is important for high strength. However, the fabric claimed herein is not designed necessarily for high strength, but, rather, for magnetic wave shielding efficiency.

None of the cited patents has anything to do with magnetic wave shielding efficiency, and none of the cited patents discloses or suggests preparing carbon fibers from oxidized polypropylene which is then carbonized at temperatures from 900-2500°C, resulting in a fabric having superior magnetic wave shielding efficiency.

Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough in view of Ogawa, US 4,862,809 in view of Barron.

This rejection is respectfully traversed. Ogawa discloses a material containing 0.5-29 wt% of carbonaceous fibers, which material has good wear and temperature resistance characteristics. While the Ogawa fibers may have

an oxygen content of 3-10%, there is nothing in Ogawa that even suggests producing a fabric that can be used as a magnetic shield.

It is respectfully submitted that the carbon fabric claimed herein is quite different from the materials disclosed in any combination of the cited references. The fabric claimed herein is made from oxidized polypropylene that has been carbonized, and the method of carbonizing these fibers (at temperature above 900°C) makes it possible to produce a fabric having a high magnetic wave shielding efficiency. It has been demonstrated in the specification in the comparative examples that conventionally manufactured carbon fabrics do not possess this superior magnetic shielding efficiency.

None of the cited references discloses or suggests that the fabrics disclosed therein can be used for magnetic shielding. The fabrics disclosed in the cited references are for fire retardation or wear and temperature resistance. There is no suggestion in any of these patents, either singly or in combination, that a fabric having good magnetic shielding efficiency can be produced from carbonized oxidized polypropylene fibers.

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In view of the above, it is respectfully submitted
that the claims are now in condition for allowance, and
favorable action thereon is earnestly solicited.

Respectfully submitted,

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